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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HOYE, MICHAEL W

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 08/10/2004

17

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/545,267

Applicant(s)

FRISCO ET AL.

Examiner

Michael W. Hoye

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32,33,35,36,39-42,45 and 47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32,33,35,36,39-42,45 and 47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/26/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicants' arguments filed on 6/14/04 have been fully considered but they are not persuasive.

Regarding independent claims 32 and 41, the Applicants' argue that, "the Examiner is using impermissible hindsight reconstruction to modify Sklar et al. in view of Galipeau et al. and in further view of Wakai et al. to produce the claimed invention. Applicants assert that there is no proper motivation to selectively modify the prior art references in the manner set forth by the Examiner absent the Applicants' disclosure."

The Applicants continue to argue on pages 8-9 that:

"...Sklar et al. fails to mention providing any other type of programming channels to the passengers, i.e., such as a flight information channel.

The IFE system in Galipeau et al. discloses a flight information channel available to the passengers, but fails to clearly state that the passengers select the flight information channel. In addition, the IFE system in Galipeau et al. fails to disclose that the IFE system comprises a satellite TV receiver.

The IFE system in Wakai et al. discloses a flight information channel that may be selected by each passenger for viewing the flight route and the aircraft's current position along the route, but Wakai et al. fails to disclose a processor for determining aircraft speed and aircraft altitude in addition to the aircraft's position displayed along the flight route. As with the Galipeau et al. patent, Wakai et al. fails to disclose that the IFE system comprises a satellite TV receiver.

More specifically, one of ordinary skill in the art would not look to modify the Sklar et al. patent to include a moving map image generator for generating a flight information channel including a moving representation of the aircraft position on the map image, or that the moving map generator comprises a processor for determining an aircraft position

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during flight, and at least one of an aircraft direction, aircraft speed, and aircraft altitude for display with the moving map image, without having had the benefit of studying the Applicants' specification."

In response to Applicants' argument that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the Applicants' disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to Applicants' argument that there is no suggestion to combine the references, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the Sklar et al., Galipeau et al., and Wakai et al. patent references are all in-flight aircraft entertainment systems (IFE). The Sklar et al reference discloses an aircraft in-flight entertainment (AIFE) system which includes a satellite television (TV) receiver as shown in Fig. 2 by the switching/receiver/decoder (SRD) 40, which further comprises receiver/decoder unit 42 and receives broadcast entertainment signals for a geostationary satellite associated with a program provider. The Sklar et al reference also discloses a processor for determining an aircraft position during flight as described in col. 8, lines 29-61, where a GPS control device may

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be implemented. Although, the Sklar et al reference does not explicitly disclose a moving map image generator for generating a flight information channel including a moving representation of the aircraft position on a map image...and permitting passenger selection of one of the programming channels and flight information channel for display thereon. The other two references, Galipeau et al and Wakai et al, used in the rejection disclose or teach IFE systems comprising a flight information channel and a moving map image generator. The Galipeau et al reference discloses an aircraft in-flight entertainment and data management system. The Galipeau et al reference teaches that additional video programming may be provided to the passengers, including a map of the flight route with the aircraft superimposed over its present position (moving map image), as well as the aircraft direction or heading, the air speed, the altitude, and other additional features (see col. 11, lines 25-38 and 198 of Fig. 12). The Galipeau et al reference further discloses the claimed said moving map image generator comprises a processor for determining an aircraft position during flight as shown by airplane systems 198 and network controller 186 in Fig. 12, which inherently comprises a processor for determining position as included with the airplane systems 198 in the figure (col. 11, lines 25-38). Although the Galipeau et al reference does not explicitly disclose whether or not the passengers may select the flight information channel, the Wakai et al reference teaches the claimed permitting passenger selection of one of the programming channels and flight information channel as met by a AIFE with a video on demand system, which allows each passenger to have selection of various video and audio channels, as well as various other features and services, including a moving map display feature (see col. 1, lines 40-50, 59-65 and col. 2, lines 7-19). Therefore, it would have been clearly obvious to one of ordinary skill in the art of AIFE systems at the time

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the invention was made to have combined the satellite TV receiver AIFE system of Sklar et al that generates a plurality of programming and services with the moving map image generator flight information channel, which includes a representation of the aircraft position on a map image as taught by the Galipeau et al reference, as well as a similar moving map image generator flight information channel that is controlled on demand by each passenger as taught by the Wakai et al. reference. One of ordinary skill in the art would have been led to make such a modification since it would further enhance a satellite TV receiver AIFE system to further include a moving map image generator/flight information channel or service that may be selected by the user or passenger along with the satellite TV and other channels or on demand services already included in the IFE system, which would bring additional satisfaction and enjoyment to the passengers who desire to know additional information about the aircraft flight. These features are all well known in the art of IFE systems ^{and} could easily be combined into a single IFE system by one of ordinary skill in the art for the advantages as previously described above.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 32-33, 35-36, 39-42, 45 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sklar et al (USPN 5,990,928), in view of Galipeau et al (USPN 6,249,913),

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both cited by the Examiner, and in further view of Wakai et al (USPN 5,973,722), cited by the Applicants.

As to claim 32, note the Sklar et al reference which discloses an aircraft in-flight entertainment (AIFE) system. The claimed satellite television (TV) receiver is met by switching/receiver/decoder (SRD) 40 which further comprises receiver/decoder unit 42 as shown in Fig. 2. The claimed plurality of passenger seatback displays connected to said satellite TV receiver is met in-part by passenger seat stations or terminals 56 as shown in Fig. 1 which inherently comprise a video display (see col. 7, line 57 – col. 8, line 16 and col. 9, lines 15-41), although Sklar does not explicitly use the term “seatback”, these types of video displays are well known in the art of aircraft in-flight entertainment systems. The claimed respective passenger control unit associated with each passenger display is also met by the passenger terminals 56 which are associated with a respective passenger video display for permitting passenger selection of one of the programming channels for display (see col. 9, lines 26-52). The Sklar et al reference discloses a processor for determining an aircraft position during flight as described in col. 8, lines 29-61, where a GPS control device may be implemented. The Sklar et al reference does not explicitly disclose a moving map image generator for generating a flight information channel including a moving representation of the aircraft position on a map image...and permitting passenger selection of one of the programming channels and flight information channel for display thereon. The Galipeau et al reference discloses an aircraft in-flight entertainment and data management system. The Galipeau et al reference teaches that additional video programming may be provided to the passengers, including a map of the flight route with the aircraft superimposed over its present position (moving map image), as well as the aircraft

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direction or heading, the air speed, the altitude, and other additional features (see col. 11, lines 25-38 and 198 of Fig. 12). The Galipeau et al reference further discloses the claimed said moving map image generator comprises a processor for determining an aircraft position during flight as shown by airplane systems 198 and network controller 186 in Fig. 12, which inherently comprises a processor for determining position as included with the airplane systems 198 in the figure (col. 11, lines 25-38). Moreover, the Wakai et al reference teaches the claimed permitting passenger selection of one of the programming channels and flight information channel as met by a AIFE with a video on demand system, which allows each passenger to have selection of various video and audio channels, as well as various other features and services, including a moving map display feature (see col. 1, lines 40-50, 59-65 and col. 2, lines 7-19). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the satellite TV receiver AIFE system that generates a plurality of programming and services of Sklar et al with the moving map image generator flight information channel that includes a representation of the aircraft position on a map image as taught by Galipeau et al, as well as a similar moving map image generator flight information channel that is controlled on demand by each passenger as taught by Wakai et al. One of ordinary skill in the art would have been led to make such a modification since it would further enhance a satellite TV receiver AIFE system to further include a moving map image generator flight information channel or service that may be selected by the user or passenger along with the satellite TV and other channels or on demand services already included in the IFE system, which would bring additional satisfaction and enjoyment to the passengers who desire to know additional information about the aircraft flight.

As to claim 33, the Sklar et al reference further discloses the claimed AIFE system wherein said satellite TV receiver is a direct broadcast satellite (DBS) receiver (col. 5, lines 59-65).

As to claim 35, the Sklar et al reference discloses the claimed AIFE system further comprising a global positioning system (GPS) receiver connected to said processor for determining the aircraft position (col. 8, lines 29-61).

As to claim 36, the Sklar et al reference discloses the claimed AIFE system further comprising a steerable antenna connected to said satellite TV receiver as shown in Figs. 1 and 2 by "tracking" satellite antenna 38 (col. 8, lines 13-15, 20-67). The claimed steering of said steerable antenna is based upon signals from said GPS receiver and is met as described by the antenna controller 46 in Fig. 2 is coupled to the GPS system (col. 8, lines 37-38), and the antenna controller continually adjusts the antenna pointing direction due to the flight of the aircraft (col. 8, lines 45-49 and 29-21).

As to claim 39, the Sklar et al reference discloses the claimed plurality of signal distribution devices as shown by the headend 52 in Fig. 1 (col. 7, line 57 – col. 8, line 16), which inherently includes a plurality of distribution devices. The claimed cable network is met by the signal distribution network 54 as shown in Fig. 1 (see col. 7, lines 57-65, also see col. 9, lines 15-52). The Sklar et al reference does not explicitly disclose a plurality of signal distribution devices within the cable network connecting said satellite TV receiver to said signal distribution devices and connected said signal distribution devices to said plurality of passenger seatback displays. However, the examiner takes Official Notice that it is notoriously well known in the art of AIFE systems to use a plurality of signal distribution devices for the advantage of distributing

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all of the signals to the intended seatback video displays, etc... while maintaining exceptional signal quality and integrity. Therefore, it is submitted that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to include a plurality of signal distribution devices within the cable network for the advantages given above. The claimed said moving map image generator connected to said signal distribution devices is met in the combination of the Sklar et al, Galipeau et al and Wakai et al references as described above in claim 32.

As to claim 40, the Sklar et al reference discloses an AIFE system as previously described above. The Sklar et al reference does not explicitly disclose that the aircraft is a narrow-body aircraft having a single passenger aisle. However, the examiner takes Official Notice that it is notoriously well known in the art of AIFE systems to use particular types of AIFE systems for narrow-body aircraft having a single passenger aisle for the advantage of taking into account space limitations that are not as critical in larger aircraft where the amount of space available is much greater for installing a distribution network, as one example. Therefore, it is submitted that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to use the AIFE system in a narrow-body aircraft having a single aisle for the advantage given above.

As to claim 41, note the Sklar et al reference which discloses a method for operating an aircraft in-flight entertainment (AIFE) system. The claimed satellite television (TV) receiver is met by switching/receiver/decoder (SRD) 40 which further comprises receiver/decoder unit 42 as shown in Fig. 2. The claimed plurality of passenger seatback displays connected to said satellite TV receiver is met in part by passenger seat stations or terminals 56 as shown in Fig. 1 which

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inherently comprise a video display (see col. 7, line 57 – col. 8, line 16 and col. 9, lines 15-41), although Sklar does not explicitly use the term “seatback”, these types of video displays are well known in the art of aircraft in-flight entertainment systems. The claimed respective passenger control unit associated with each passenger display... is also met by the passenger terminals 56 which are associated with a respective passenger video display for permitting passenger selection of one of the programming channels for display (see col. 9, lines 26-52). The Sklar et al reference discloses a processor for determining an aircraft position during flight as described in col. 8, lines 29-61, where a GPS control device may be implemented. The Sklar et al reference does not explicitly disclose generating a flight information channel including a moving representation of the aircraft position on a map image...and permitting passenger selection of the flight information channel on one of the passenger seatback displays... The Galipeau et al reference discloses an aircraft in-flight entertainment and data management system. The Galipeau et al reference teaches that additional video programming may be provided to the passengers, including a map of the flight route with the aircraft superimposed over its present position (moving map image), as well as the aircraft direction or heading, the air speed, the altitude, and other additional features (see col. 11, lines 25-38 and 198 of Fig. 12), and the reference also teaches permitting passenger selection of the channel on a video display using a passenger control unit (see col. 7, lines 19-27 & 42-54). The Galipeau et al reference further discloses the claimed said moving map image generator comprises a processor for determining an aircraft position during flight as shown by airplane systems 198 and network controller 186 in Fig. 12, which inherently comprises a processor for determining position as included with the airplane systems 198 in the figure (col. 11, lines 25-38). Moreover, the Wakai et al reference

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teaches the claimed permitting passenger selection of one of the programming channels and flight information channel as met by a AIFE with a video on demand system, which allows each passenger to have selection of various video and audio channels, as well as various other features and services, including a moving map display feature (see col. 1, lines 40-50, 59-65 and col. 2, lines 7-19). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the method for operating a satellite TV receiver AIFE system comprising a plurality of programming services of Sklar et al with the moving map image generator flight information channel that includes a representation of the aircraft position on a map image as taught by Galipeau et al, as well as a similar moving map image generator flight information channel that is controlled on demand by each passenger as taught by Wakai et al. One of ordinary skill in the art would have been led to make such a modification to the method since it would further enhance a satellite TV receiver AIFE system to further include a moving map image generator flight information channel or service that may be selected by the user or passenger along with the satellite TV and other channels or on demand services already included in the IFE system, which would bring additional satisfaction and enjoyment to the passengers who desire to know additional information about the aircraft flight through their own selection of the channel.

As to claim 42, the claimed method is rejected based claim 33.

As to claim 45, the Sklar et al reference discloses the claimed method wherein the AIFE system further comprises a global positioning system (GPS) receiver for determining the aircraft position (col. 8, lines 29-61). The GPS receiver signals of the Sklar et al reference would be beneficial for the combination with the Galipeau et al reference as described above for

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generating the flight information channel and determining the aircraft position using the GPS signals received.

As to claim 47, the claimed method is rejected based claim 40.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael W. Hoye whose telephone number is (703) 305-6954. The examiner can normally be reached on Monday to Friday from 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at (703) 305-4795.

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Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to customer service whose telephone number is **(703) 308-HELP**.

Michael W. Hoye
August 9, 2004


JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600